



Astronotes: Outburst Predicted this Summer from Nearby Supernova

January 9

[American Astronomical Society 2003](#) Outburst Predicted this Summer from Nearby Supernova

SEATTLE - An explosive star in the Southern Hemisphere called Eta Carinae, which is at least 100 times more massive than our Sun, appears actually to be two stars working in concert. Proof may come this summer when the star is expected to act up again.

The supernova erupted magnificently in the 1800s, becoming one of the brightest stars in the night sky. It has since settled down a bit as two giant bubbles of material billow into space. In 1997, a peak of activity, seen in X-rays, was thought to be attributed to a 5.5-year cycle.

At a meeting here of the American Astronomical Society, scientists monitoring the X-rays said evidence is building for a theory that the cycle is caused by a smaller stellar companion. As the stars orbit one another, their stellar winds clash in varying ways, producing dips and peaks in X-ray emissions.

Michael Corcoran of NASA's Goddard Space Flight Center is leading the investigation. He said the smaller star seems to contain the mass of 30 suns, while the larger star is 80 times more massive than the Sun.

If the two-star theory is right, the next peak will occur this summer. Astronomers plan a worldwide effort to observe Eta Carinae in all wavelengths of the electromagnetic spectrum, from radio to visible light and on up to gamma rays, from the ground and from space. It will be one of the most thoroughly observed astronomical events in history. [\[Are we in danger?\]](#)

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[American Astronomical Society 2003](#) Ejected! Small Star Bullied into Lonely Path

SEATTLE - After examining 20 years of data, astronomers say they've identified a small young star that's been tossed out of what was a three-star system, left to probably wander through space alone while its two larger and previous orbital companions remain gravitationally huddled.

The event, announced here today at a meeting of the American Astronomical Society, is the first to ever have been observed as it occurred.

The evidence, from the National Science Foundation's Very Large Array telescope, shows that the smaller star underwent a drastic change in orbit after passing close to one of its companions in the mid-1990s.

"The young star was accelerated to a large velocity by the close approach, and certainly now is in a very different, more remote orbit, and may even completely escape its companions," said Laurent Loinard of the National Autonomous University of Mexico.

The star system is called T Tauri and sits about 450 light-years from Earth. Further observations through the next five years could determine the star's fate. [3-star systems may be common, [as we learned](#) at an AAS meeting last year.]

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